

Claims

1. Apparatus for collecting material, particularly oil, floating on the surface of a body of water, comprising
- 5 a collection vessel (11) with a collection compartment (A) which comprises
- an upper subcompartment (B) which is delimited laterally by an inner wall (12/13) having a skimming weir (K) forming an inlet to the collection compartment (A),
  - 10 - a lower subcompartment (C) which is delimited laterally by an outer wall (15), and
  - a bottom outlet (14A),
- means (19) for discharging water from the collection compartment (A) through the bottom outlet (14A),
- 15 the inner wall (12/13) and the outer wall (15) delimiting a separation compartment (D) for the floating material, the separation compartment (D) being in open communication with the upper subcompartment (B) of the collection compartment (A),
- characterised** by a valve (16/13B) which is provided at the top of the
- 20 separation compartment (D) and when in an open position connects the separation compartment (D) with the upper subcompartment (B) of the collection compartment (A).
2. Apparatus according to claim 1, **characterised** in that the valve
- 25 (16/13B) extends substantially around the upper subcompartment (B) of the collection compartment (A).
3. Apparatus according to claim 1 or 2, **characterised** in that the inner wall (12/13 and the outer wall /15) are annular and concentric.
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4. Apparatus according to any one of claims 1 or 3, **characterised** in that the valve includes an annular valve member (16) which is disposed around the upper subcompartment (B) of the collection compartment and in the closed position of the valve is in sealing engagement with an annular valve
- 35 seat (13B) on the inner wall.

5. Apparatus according to claim 3, **characterised** in that the valve seat (13B) is provided on a lower part (13) of the inner wall (12/13) and in that the lower end of an upper part (12) of the inner wall is secured to the valve member and movable together with it.

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6. Apparatus according to claim 5, **characterised** in that the height of the upper part (12) is variable.

7. Apparatus according to claim 6, **characterised** in that the upper part  
10 (12) is formed over at least a portion of its height by an annular bellows (12B).

8. Apparatus according to any one of claims 1 to 7, **characterised** in that  
15 the valve (16/13B) is operable between closed and open positions by the action of a hydrostatic differential pressure across the valve.

9. Apparatus according to any one of claims 1 to 8, **characterised** in that  
20 the valve (16/13B) is acted on in the closing direction by water pressure outside the inner wall (12/13).

10. Apparatus according to any one of claims 1 to 9, **characterised** in that the skimming weir (K) is formed by a buoyant body (12A).

11. Apparatus according to any one of claims 1 to 10, **characterised** by an  
25 outlet (25A) which communicates with the upper subcompartment (B) of the collection compartment (A) and includes a riser tube (26) having a vent opening at its upper end and an overflow outlet (26A) at a level below the vent opening.

30 12. Apparatus according to claim 11, **characterised** by a collapsible floating recipient (27) having a mouth (27A) which is detachably connected to the overflow outlet (26A) and a collapsible drain (27C) provided at a bottom side of the recipient remote from the mouth (27A).

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13. Apparatus according to claim 12, **characterised** in that the overflow outlet (26a) is tubular and in that the mouth (27A) of the floating recipient (27) is tubular and slipped over the overflow outlet (26A) and clamped to it by means of a clamping ring connector (28) including an axially displaceable  
5 clamping ring (28A) surrounding the overflow outlet (26A) and an annular bead (26C) on the overflow outlet (26A).

14. Apparatus for collecting material, especially oil, floating on the surface of a body of water, comprising a compartment (A) for accomodating the  
10 floating material, **characterised** by an outlet (35A) which communicates with the accomodating space (A) and includes a riser tube (26) having a vent opening at its upper end and an overflow outlet (26A) at a level below the vent opening.

15. Apparatus according to claim 14, **characterised** by a collapsible floating recipient (27) having a mouth (27A) which is detachably connected to the overflow outlet (26A) and a closable drain (27C) provided at a side of the recipient remote from the mouth.

20 16. Apparatus according to claim 14 or 15, **characterised** in that the overflow outlet (26a) is tubular and in that the portion (27A) of the floating recipient (27) is tubular and slipped over the overflow outlet (26A) and clamped to it by means of a clamping ring connector (28) including an axially displaceable clamping ring (28A) surrounding the overflow outlet (26A) and an  
25 annular bead (26C) on the overflow outlet (26A).

17. Apparatus according to claim 16, **characterised** in that the clamping ring connector also includes an intermediate ring (27B) provided on the mouth (27A) of the recipient and disposed between the clamping ring (28A)  
30 and the bead (26).

18. Collapsible floating recipient (27) for use in the collection of material, particularly oil, floating on the surface of a body of water, **characterised** in that it is a bag-like container (27) having a mouth (27A) and a closeable drain  
35 (27C) provided at a side of the container remote from the mouth.